NON-PUBLIC?: N
ACCESSION #: 8912200016
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Monticello Nuclear Generating Plant PAGE: 1 OF 03

DOCKET NUMBER: 05000263

TITLE: Scram Caused by Spurious Actuation of Reactor High Pressure Switch
EVENT DATE: 11/15/89 LER #: 89-038-00 REPORT DATE: 12/15/89

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: N POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Michael J. Langford, Senior I & C Engineer TELEPHONE: (612) 295-1312

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

A reactor scram occurred from 100% power. Channel A of the reactor pressure system was tripped for routine surveillance. A spurious, momentary high reactor pressure signal tripped channel B of the reactor protection system. All testing verified the calibration and operability of the pressure switch. Computer event logs indicated a momentary trip signal with characteristics resembling a bump to the switch. Although no individual could be located who was aware of having bumped the switch, this remains the probable cause of this event. The switch was replaced in kind. Bench testing of the removed switch verified proper operation. This event will be added to general employee training to raise awareness of the consequences of bumping plant instruments. Technical Specification changes will be pursued to reduce the total time half scrams are required during maintenance and testing. The clarity and visibility of posted warnings to plant personnel in the area of these

switches will be improved.

END OF ABSTRACT

DESCRIPTION

At 0951 CDST on November 15, 1989, a reactor scram occurred from 100% power. Recirculation flow instrument calibration was in progress, for which a channel A half scram was inserted. A spurious, momentary reactor protection system (EIIS System Code: JC) trip from the B channel reactor high pressure sensor (EIIS Component Code: PS) was simultaneously received, completing the scram logic. All systems involved in the event were considered operable and operated as designed. The plant was in a stable condition at all times. Actions for scram recovery were accomplished in accordance with existing procedures.

CAUSE

The root cause of this scram was a spurious, momentary trip originating from a B channel reactor high pressure switch. Calibration following the event did not identify a problem with the pressure switch. The switch was replaced in kind. Bench testing of the removed switch verified proper operation. The pressure switches are known to be sensitive to bumping. Computer event recordings indicated trip characteristics resembling those expected for a short duration trip signal caused by bumping. Although investigation did not identify an individual who was aware of bumping the switch, this remains the most probable cause for the spurious trip.

A contributing cause for this event was routine surveillance testing for which a channel A half scram was inserted.

ANALYSIS

This event represents an unnecessary challenge to the Reactor Protection system and an additional transient for plant equipment. However, there were no other consequences that affected public health or safety. Scram from 100% power is an analyzed and acceptable event. The event occurred under the worst possible set of initial conditions.

CORRECTIVE ACTIONS

Immediate actions were taken for scram recovery in accordance with existing procedures. Surveillance testing in progress was halted. The pressure switch was calibrated in place. When in-place calibration did not detect a problem, it was replaced in kind and bench tested. All testing showed the switch to be functional. Records were reviewed to identify personnel in the reactor building at the time of the scram. These individuals were interviewed and none were aware of any activity which might have actuated the pressure switch.

This event will be added to general employee training to raise awareness of the possible consequences of bumping plant instruments and encourage self-reporting. Technical Specification changes will be pursued to reduce the total time half scrams are required during maintenance and testing. The clarity and visibility of posted warning signs will be improved for the panels on which the pressure switches are mounted.

ADDITIONAL INFORMATION

Failed Component Identification

There were no component failures associated with this event.

Previous Similar Events

None

NSP Northern States Power Company

414 Nicollet Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

December 15, 1989 Report Required by
10 CFR Part 50, Section 50.73

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Scram Caused by Spurious Actuation of Reactor

High Pressure Switch

The Licensee Event Report for this occurrence is attached.

This event was reported via the Emergency Notification System in accordance with 10 CFR Part 50 Section 50.72 on November 15, 1989.

Thomas M Parker
Manager
Nuclear Support Services

c: Regional Administrator - III NRC
Sr Resident Inspector, NRC
NRR Project Manager, NRC
MPCA
Attn: Dr J W Ferman

Attachment

*** END OF DOCUMENT ***